the present invention had to be developed. A first aspect was a system for configuring the interconnections between the network components in the Open IP Services Platform. Consider multiple switches and a packet shaper disposed within the Open IP Services Platform. The packet shaper must be coupled to specific ports of the multiple switches. It is a novel aspect of the invention to provide a software package COREVISTA WEB(TM) that provides configuration control by physically interconnecting network devices that are stored within the Open IP Services Platform. Control over network devices in the Open IP Services Platform is provided at what can be considered to be two levels. The first level of control enables the user to make specific port assignments if the system administrator is experienced, while the second level of control takes specific port assignments out of the hands of the administrator, and allows the specific configuration of ports to be left to the configuration software if the system administrator has only a limited understanding of network topology, or does not want to be bothered with control at that level.

[0048] It should be mentioned that the software package

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for configuration and management of the device is simple enough to operate that a network specialist does not have to be brought in to set up the Open IP Services Platform. This aspect of the invention is made possible because the interface provides drag-and-drop configuration, as well as pre-configured loads.

[0049] With this brief introduction, a single network switching node device of the invention is shown in figure 2. Figure 2 illustrates that all of the network services provided by individual network components 18, 20, 22, 24, 26, 28 have been replaced by a single Open IP Services Platform 30. It should be remembered that any or all of the functions of the network devices described above can be replaced as desired. Furthermore, it is another aspect of the Open IP Services Platform to include at least one large computer hard drive, or other modifiable mass storage device. It is probably an important aspect of the invention to provide mass storage capabilities in each network switching node device device too thereby increase local network traffic.

[0050] Figure 3 is a block diagram of the inner structure of a network switching node device or Open IP

Services Platform of the present invention. This figure is provided to illustrate that the Open IP Services Platform 30 incorporates a Level 4 switch router 32 at the bottom level, and a general purpose central processing unit (CPU) 34 at the top level. It should be mentioned that while a general purpose CPU is preferred, any type of specialty CPU can be substituted. The reason for preferring a general purpose CPU is that it is going to be more flexible. In other words, the Open IP Services Platform 30 can do more than just function as a unit for consolidating network functions if it is given more processing power, and the ability to run more programs simultaneously. The drawback is that a specialty CPU can be faster. However, given the fact that general purpose CPUs have increased in operation capabilities so rapidly, it is unlikely that the CPU would be a bottleneck to performance for most situations where the Open IP Services Platform is deployed. And for the present invention, versatility is an important feature.

[0051] The switch router 32 communicates with the CPU 34 via an internal Peripheral Component Interconnect (PCI) bus 36. Presently, that translates into a communication